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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PASCHALL, MARK H

ART UNIT

PAPER NUMBER

3742

MAIL DATE

DELIVERY MODE

05/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/572,414

Applicant(s)O'CONNOR, JASON DANIEL
HAROLD**Examiner**

Mark H. Paschall

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thrash 5,801,914 in view of Hess 3,360,631.

Thrash teaches the claimed subject matter except for showing use of heating of the conductors that supply power to the PTC heater to enable a proper bond of the conductors to the PTC element. It should be noted that the claim language does not specify that the heating occurs during manufacture, as defined in the disclosure, and the present claim language does not preclude the heating occurring during operation of the heater, subsequent to manufacture. In addition the patent to Hess has been applied for teaching that it is conventional to heat a connection in a ptc to wire device during manufacture to enable a superior bond of the ptc element to the wire conductor and in view of this teaching it would have been obvious to modify the Thrash patent to use heating of the conductor wires during fabrication, to enhance the bond of the connection of the wire to the ptc heater. It is considered obvious to use ohmic heating to heat in lieu of an additional heater, as defined, barring definition in the claims that the conductors are capable of providing ohmic heating and barring disclosure of current levels in the conductor's capable or attaining heat sufficient to effect such bond.

Response to Arguments

Applicant's arguments filed 2-20-2009 have been fully considered but they are not persuasive. The claims under rejection define a method of processing comprising applying a current along a conductor such that the surface temperature of the conductor is raised by ohmic heating to a thermal transition point that allows plastic flow of the heating element. The patent to Thrash clearly teaches heater 34 that are connected to the power supply, as claimed. The patent to Thrash does not teach the claimed ohmic heating to raise the temperature of the conductor to allow a plastic flow to enable connection. This claim limitation, as set forth in the above rejection, can merely construe use of solder to enhance the connection of the heater with the power supply. As set forth in the rejection, the patent to Hess is applied for teaching solder insert 21 that is heated by ohmic heating to connect conductors, as claimed, See figures 3-5 in Hess. Applicant's remarks advance that Hess does not teach this ohmic heating to enable connection of conductors. This is not the case. Hess, in column 3 lines 40-5- teaches, "a current is passed through the resulting circuit causing the sheet of resistance alloy to be heated to a temperature sufficient to melt the solder inserts 14 and recover the sleeves". Clearly this teaching of Hess motivates one of ordinary skill in the art to use ohmic heating of a material between two conductors that will become plastic during the heating to enable the connection of the conductors. The artisan would find proper motivation in the Hess teaching to use such heating conductor process on the heating cables in

Thrasher, when so connected to the power supply. This does not construe hindsight, as the remarks advance, but only routine design expertise. Applicant's argument in the last paragraph on page 8 of the remarks, advances that, "Further, Hess discloses that the temperature is sufficient to shrink the heat recoverable material and melt the solder". Clearly this teaches sending a current along a conductor to melt a solder insert between opposing conductors, as broadly claimed. When solder is melted it provides a plastic flow of the melted solder, as claimed. This does not construe hindsight, as advanced on page 9 in the remarks, but merely comprises using a common connection technique, as set forth in Hess, to connect the heater to the power supply connectors, in the Thrasher patent. Applicant's remarks stating, "Applicant cannot understand how these two disparate technologies and references can be combined to establish a *prima facie* case of obviousness", is not understood, since the Hess reference is merely used in the rejection for teaching a common connection scheme, known in 1967'. Use of particular heating intervals as per claim 5 is routine design skill, dependent on the materials used and the conductor sizes used, yet undisclosed. As per claim 7 use of monitoring the connections as produced, merely comprises routine quality control, barring further description of just what the monitoring comprises.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark H. Paschall whose telephone number is 571 272-4784. The examiner can normally be reached on 7am - 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark H Paschall
Primary Examiner
Art Unit 3742

Mhp

/Mark H Paschall/
Primary Examiner, Art Unit 3742